

**BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2017-281-E**

Shorthorn Solar, LLC; Rollins Solar, LLC;)	
Juniper Solar, LLC; Meslam Solar, LLC;)	
Culpepper Solar, LLC; Ashley Solar, LLC;)	
Jefferson Solar, LLC; Madison Solar, LLC;)	
Fairfield Solar, LLC; Bell Solar, LLC;)	
Webster Solar, LLC; B&K Solar, LLC;)	
GEB Solar, LLC; Ross Solar, LLC;)	DUKE ENERGY CAROLINAS, LLC
Summerton Solar Farm, LLC;)	AND DUKE ENERGY PROGRESS,
Clarendon Solar Farm, LLC;)	LLC'S SECOND SET OF
Azalea Solar LLC; Cardinal Solar LLC;)	INTERROGATORIES AND REQUEST
Sunflower Solar, LLC; Cosmos Solar, LLC;)	FOR PRODUCTION OF DOCUMENTS
Zinnia Solar, LLC; Chester PV1, LLC;)	TO THE ECOPLEXUS PROJECTS
Ninety-Six PV1, LLC; Newberry PV1, LLC;)	
Bradley PV1, LLC; Jonesville PV1, LLC;)	
Ft. Lawn PV1, LLC; and)	
Mt. Croghan PV1, LLC,)	
)	
Complainants/Petitioners,)	
)	
v.)	
)	
Duke Energy Carolinas, LLC and Duke)	
Energy Progress, LLC,)	
)	
Defendants/Respondents.)	
)	

Duke Energy Carolinas, LLC and Duke Energy Progress, LLC by and through their legal counsel, pursuant to Rule 103-833(B) and (C) of the Rules of Practice and Procedure of the South Carolina Public Service Commission, hereby submit this second set of interrogatories and request for production of documents to the following entities: Chester PV1, LLC; Ninety-Six PV1, LLC; Newberry PV1, LLC; Bradley PV1, LLC; Jonesville PV1, LLC; Ft. Lawn PV1, LLC; and Mt. Croghan PV1, LLC (collectively "Ecoplexus Projects") of whom Ecoplexus, Inc. is the

corporate parent. Please forward to the undersigned on or before **Tuesday, November 9, 2017** your responses to the following requests:

INSTRUCTIONS

1. As used herein, (i) “all,” “any,” and “each” encompass any and all; (ii) “and” and “or” shall be construed either disjunctively or conjunctively as necessary to bring within the scope of the discovery request all responses; (iii) the singular includes the plural and vice versa; and (iv) “including” means “including, without limitation.”

2. Unless otherwise stated, the relevant time period for these Requests is from January 1, 2014, until the present.

3. If Your answer is based on information and belief, specify and identify the source of the information and the grounds for the belief.

4. Answer each Request separately and fully in writing under oath, unless You object to the Request, or withhold information on the ground of privilege or otherwise, in which event state the reasons for the objection or privilege, and answer to the extent You do not object or claim privilege.

5. Furnish all requested information known to, possessed by, or available to You.

6. The knowledge of Your agents, employees, or consultants is Your knowledge so that if Your agents, employees, or consultants have knowledge of the information Requested herein, You must incorporate said knowledge into Your answers.

7. If You are unable to answer fully after exercising reasonable due diligence, answer to the fullest extent possible and explain Your inability to answer the remainder.

8. If precise information requested is unknown to You, state the best approximation and basis for this approximation.

9. No Request limits the scope of any other Request.

10. Where a Request calls for an answer in more than one part, answer each part separately so that Your answer is clearly understandable.

11. Your obligation to produce Documents is not limited to Documents in Your physical possession. You must also produce all Documents that You have the right or ability to obtain on demand.

12. If any Document requested was at one time in existence, but is either no longer in existence or has been lost, state for each such Document: (1) the type of Document; (2) the subject matter of the Document; (3) the date upon which the Document ceased to exist or was lost; (4) the circumstances under which the Document ceased to exist or was lost; (5) the identity of all Persons having knowledge of the circumstances under which the Document ceased to exist or was lost; and (6) the identity of all persons having knowledge of the contents of said Document.

13. If You are asserting the attorney-client privilege, work product doctrine, or any other privilege or basis as the justification for Your failure to produce any Document or respond to any Request, describe the factual basis for Your claim of privilege, including: (1) the nature of the Document or information, including a summary statement of the subject matter in sufficient detail to permit a determination regarding the validity of Your claim of privilege; (2) the identity of the sender(s) of the Document; (3) the identity of the author(s) of the Document; (4) the identity of the recipient(s) of the Document; (5) the job title of each person named in

subparts (2) – (4) above; (6) the recipients of each copy and the names appearing on any circulation list; (7) the date or approximate date of the Document; (8) the name of each Person to whom the original or any copy was circulated; and (9); an explanation of the basis for assertion of the privilege or protection of the Document.

14. Physically or electronically segregate Documents produced in response to a particular Request from Documents produced in response to any other particular Request, and identify the Request to which they are responsive. If a Document is responsive to more than one particular Request, specify each Request to which such Document is responsive.

15. In producing Documents pursuant to a Request, please mark the documents with the specific data request number pursuant to which the Documents are being produced and mark each page of each Document produced with a Bates number.

16. All Documents derived from word processing programs, email applications, instant message logs, spreadsheets, and wherever else practicable should be produced in text searchable Portable Document Format (“pdf”) format. Spreadsheets should be provided in their native form.

17. These Requests are continuing in nature, such that You must provide a supplemental response if and when You discover, obtain, or recollect other or further information responsive to any Request. In addition, You must amend the answer to any Request if and when You discover or ascertain that the answer was incorrect.

18. Please provide responses to the following data requests electronically. To the extent this is impracticable, the responses, including any responsive Documents, should be provided at the offices of Sowell, Gray, Robinson, Stepp & Laffitte, LLC, 1310 Gadsden Street,

Columbia, South Carolina 29201, or some mutually convenient location otherwise agreed to by the parties.

DEFINITIONS

1. **“Commission”** means the Public Service Commission of South Carolina.
2. **“Communication”** means the transmittal of information in the form of facts, ideas, Documents, inquiries, or otherwise, including every discussion, conversation, conference, or telephone call.
3. **“Complaint”** means the Complaint filed by You in the Docket on August 31, 2017.
4. **“Complainant” or “Complainants”** means the Chester PV1, LLC; Ninety-Six PV1, LLC; Newberry PV1, LLC; Bradley PV1, LLC; Jonesville PV1, LLC; Ft. Lawn PV1, LLC; and Mt. Croghan PV1, LLC (collectively “Ecoplexus Projects”) of whom Ecoplexus, Inc. is the corporate parent. **“Concerning”** means relating to, referring to, describing, evidencing, or constituting.
5. **“DEP”** means Duke Energy Progress, LLC.
6. **“DEC”** means Duke Energy Carolinas, LLC.
7. **“Docket”** means Commission Docket No. 2017-281-E.
8. **“Documents” or “Document”** means any and all writings, drawings, graphs, charts, photographs, memoranda, letters, facsimiles, telexes, correspondence, e-mail, memoranda, notes, work, papers, reports, invoices, receipts, estimates, ledgers, books of account, checks, check stubs, minutes or records of meetings or conferences, summaries of negotiations,

directives, interviews, transcripts, notations of conversations, telephone calls or meetings, calendars, appointments books, diaries, journals, agenda, computer or other business machine entries, including the original and all non-identical copies and drafts and every document known to You, Your representatives or other persons acting on Your behalf, or any other data compilations from which information can be obtained or translated. A draft or non-identical copy is a separate Document.

9. **“Facility”** means a proposed or currently operational electric generating facility in South Carolina or North Carolina.

10. **“FERC”** means the Federal Energy Regulatory Commission.

11. **“Identify,”** when referring to a Person, means to give, to the extent known, the Person’s full name, present or last known address, and when referring to a natural Person, additionally, the present or last known place of employment.

12. **“Identify,”** when referring to Documents, means to give, to the extent known, the (i) type of Document; (ii) general subject matter; (iii) date of the Document; and (iv) authors, addressees and recipients.

13. **“Identify,”** when referring to an oral Communication, means to give, to the extent known, the identity of the speaker and of each Person who was present when the Communication was spoken, and the substance, date, and place of such Communication.

14. **“Identity,”** when referring to a Person that is not a natural Person, means to additionally provide at least one name of a natural Person representative of such Person and the telephone number of that natural Person.

15. **“Loan”** means a loan of money or extension of credit (including any financing lease, backleverage financing, letters of credit, or credit derivative arrangement) for (a) construction, term, or permanent financing or refinancing; (b) working capital or other ordinary business requirements (including for the maintenance, repair, replacement, or improvement of a Facility); (c) any development financing, bridge financing, credit support, and related credit enhancement or interest rate, currency, weather, or RECs Concerning the development, construction, or operation of a Facility; or (d) the purchase of a Facility.

16. **“Offered PURPA Terms”** means the terms and conditions, specifically including a five-year tenor, Communicated to Petitioners in response to Petitioner’s request to sell the output of certain of the Project LLCs’ Facilities to DEC and DEP under PURPA.

17. **“Person”** means any natural person or any business, legal, or governmental entity or association.

18. **“Project LLCs”** means “the Complainants as identified above.

19. **“PURPA”** means the Public Utility Regulatory Policies Act of 1978.

20. **“QF”** means a Qualifying Facility as defined in 18 C.F.R. 292.101

21. **“Standard Offer to Purchase”** means DEC’s and DEP’s South Carolina rate schedule PP standard offer PPA and terms and conditions available to QFs with a nameplate rating of 2 MW or less.

22. **“Southeast”** means generally the southeastern United States, and specifically is intended to include the states of South Carolina, North Carolina, Virginia, Tennessee, Florida, Georgia, Alabama, Mississippi, or Louisiana.

23. **“Tax Benefit”** means any state, local or federal production tax credit, tax deduction, cash grant, bonus depreciation, or investment tax credit specific to the production of renewable energy or investments in renewable energy facilities.

24. **“Tax Investment Agreement”** means an agreement Concerning purchase, sale, use, or ownership of Tax Benefits, tax equity investment, inverted lease, sale-leaseback, lease, tax lease, partnership flip, target yield flip, Tax Benefit pass-through, call option sale, or other monetization of or sale of Tax Benefits.

25. **“You”** means Southern Current Complainants and **“Your”** means belonging to You.

INTERROGATORIES: SC PSC RULE 103-833(B)

1. To the degree not already produced in response to Question No. 6 of the Companies’ first Request for Production of Documents, please provide the following information for each Facility previously requested to be Identified:

- a. technical and operational characteristics including the following:
 - i. MW Capacity (AC and DC) Estimated useful economic life (years)
 - ii. Forecast annual degradation (%)
 - iii. Forecast annual energy output on an hourly basis (AC)
 - iv. Claimed capacity credit (%)
 - v. Estimated O&M costs (\$)
- b. The following costs:
 - i. Variable operating
 - ii. Fixed operating
 - iii. Insurance

iv. Land lease

v. Property taxes

- c. The material terms of all Loan, Tax Investment Agreement, or other investment agreements for each Facility, including rates of interest, fees, and threshold or target returns on investment.
- d. To the extent not already provided in response to Question No. 6(c) of the Companies' first Request for Production of Documents, any underlying spreadsheet calculations related to the information requested in live, native format.

2. Please Identify any and all other utilities or state regulatory authorities in the Southeast, excluding South Carolina, that implement PURPA by offering PURPA PPAs providing fixed energy and capacity rates for terms longer than the five years offered by DEC or DEP to Complainants through the Offered PURPA Terms.

3. Please Identify any and all Communications, Documents, or Persons supporting each Complainant's allegation that DEP or DEC, as applicable, have responded to Complainants by offering only a "stated refusal" to enter into long-term Power Purchase Agreements," as alleged by You under Nature of Action in the Complaint.

4. Please Identify any and all Communications, Documents, or Persons supporting each Complainant's allegation that "[e]ach of the Complainants has requested commercially reasonable, long term PPAs from Duke" as alleged by You in Paragraphs 3, 6, 9, and 12 of the Complaint.

5. Please explain the meaning of the phrase "commercially reasonable" as used by You in Paragraphs 3, 6, 9, and 12 of the Complaint.

6. Please Identify any and all Communications, Documents, or Persons supporting each Complainants' allegation that DEP or DEC, as applicable, have not acted in "good faith" in implementing their obligations under PURPA to purchase from Complainants' Project LLC's QFs as alleged by You under Nature of Action and in Paragraph 24 of the Complaint.

7. Please Identify any and all Communications, Documents, or Persons supporting Complainants' allegation that "there is no practical access to wholesale markets" as alleged by You in Paragraph 6 of the Complaint.

8. Please Identify any and all Communications, Documents, or Persons supporting Complainants' allegation that "In a regulated market like South Carolina, a solar facility generally must obtain a PPA before it can be financed or constructed" as alleged by You in Paragraph 7 of the Complaint.

9. Please Identify any and all Communications, Documents, or Persons supporting Complainants' allegation that "[i]n general, the longer the duration of a solar project's fixed-price PPA, the easier it is for developer [sic] to obtain financing for the project" as alleged by You in Paragraph 8 of the Complaint.

10. Please Identify any and all Communications, Documents, or Persons supporting Complainants' allegation that "[DEC or DEP] historically has entered into PPAs with Solar QFs in South Carolina with durations substantially longer than five years" as alleged by You in Paragraph 14 of the Complaint.

11. Please Identify any and all Communications, Documents, or Persons supporting Complainants' allegation in Paragraph 20 of the Complaint that "[w]hen procuring solar generating capacity through competitive solicitations in North Carolina and South Carolina, Duke has sought PPAs with terms as long as twenty years."

12. Please Identify any and all Communications, Documents, or Persons supporting Complainants' allegation in Paragraph 20 of the Complaint that "[i]n a competitive solicitation for renewable resources (including solar) in Florida, Duke Energy Florida has required generators to propose PPAs with a term between ten and thirty-five years."

13. Please Identify any and all Communications, Documents, or Persons supporting Complainants' allegation in Paragraph 22 of the Complaint that "Duke is aware that utility-scale solar projects cannot be financed with five-year PPAs . . ."

14. Please explain whether the Complainants' offer to sell under PURPA allows DEP or DEC, respectively, to operate and dispatch the Complainant's solar Facilities through automatic generation control, similar to DEP's and DEC's own fleet solar Facilities.

15. Please explain whether the Complainants' offer to sell under PURPA allows DEP or DEC, respectively, to curtail the Complainants' solar Facilities' output during system emergencies, as contemplated by FERC's PURPA regulations (18 C.F.R. 292.307(b)).

16. Please explain whether the Complainants' offer to sell under PURPA allows DEP or DEC, respectively, to curtail the Complainants' solar Facilities output during light loading operational circumstances to avoid incurring costs greater than DEC or DEP would incur if it did not purchase energy from the Facilities, but instead generated an equivalent amount of energy itself, as contemplated by FERC's PURPA regulations. (18 C.F.R. 292.304(d)(4)).

17. Please explain whether Complainants agree that system operational circumstances where injections of unscheduled energy by the Complainants' solar Facilities could imminently contribute to a potential violation of DEC's or DEP's compliance with the North American Electric Reliability Corporation ("NERC") safety and reliability regulations would constitute a system emergency under PURPA. Should Complainants disagree with this statement, please

explain Complainants' position in detail and Identify any Persons with information or produce Documents supporting Complainants' position.

18. Please explain whether the Complainants agree that future unscheduled "must take" energy injections by the Complainants' proposed solar Facilities under PURPA during periods where the aggregate unscheduled energy injected by utility-scale solar QFs would exceed DEP's or DEC's system needs ("operationally excess energy") does not allow DEP or DEC to avoid generating or purchasing alternative energy to meet customers' total electricity needs (*i.e.*, serve total system load) during these periods. More precisely, do Complainants contend that Complainants' proposed solar Facilities will avoid any incremental cost of alternative electric energy – either the purchased power cost of incremental energy purchased from another source or fuel cost associated with DEP or DEC generating incremental energy – during periods of operationally excess energy on the DEC or DEP system?

19. Please explain whether Complainants agree that DEC and DEP should take into account the priority order that QFs commit to sell energy to DEP or DEC under PURPA in valuing whether system energy needs are avoided at the time the next increment of QF energy is offered to be delivered, especially during periods of increasing operationally excess energy.

20. Please explain whether Complainants agree that it would not constitute reasonable and prudent utility planning for DEP to commit to longer-term purchases of unscheduled variable and intermittent solar energy where DEP forecasts growing levels of operationally excess energy during the fall, winter and spring periods.

21. Please Identify any Communications, Documents, or Persons relating to the expected or demonstrated reliability of the Project LLCs' proposed Facilities. (18 C.F.R. 292.304(e)(2)(ii)).

22. Please explain the extent to which scheduled outages of Complainants' Project LLCs' proposed solar Facilities can be usefully coordinated with scheduled outages of DEP's or DEC's load following generating fleet. (18 C.F.R. 292.304(e)(2)(iv))

23. Please explain the usefulness of energy and capacity supplied by Complainants' Project LLCs' proposed solar Facilities during system emergencies. (18 C.F.R. 292.304(e)(2)(ii))

REQUESTS FOR PRODUCTION OF DOCUMENTS: SC PSC RULE 103-833(C)

1. Please provide copies of all Documents, as broadly defined herein, identified by You in Your answers to each Interrogatory in DEC's and DEP's Second Set of Interrogatories to Complainants.

Dated this 20th day of October, 2017.

Heather Shirley Smith, Deputy General Counsel
Rebecca J. Dulin, Senior Counsel
Duke Energy Carolinas, LLC
40 West Broad St, Suite 690
Greenville, SC 29601
Telephone 864.370.5045
heather.smith@duke-energy.com
rebecca.dulin@duke-energy.com

and



Frank R. Ellerbe, III (SC Bar No. 01866)
SOWELL GRAY ROBINSON STEPP & LAFFITTE, LLC
P.O. Box 11449
Columbia, SC 29211
(803) 929-1400
fellerbe@sowellgray.com
Attorneys for Duke Energy Carolinas, LLC
Duke Energy Progress, LLC